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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/333,829	06/15/1999	TERO KIVINEN	BER-008	4596
26717	7590	01/12/2005	EXAMINER	
RONALD CRAIG FISH, A LAW CORPORATION PO BOX 820 LOS GATOS, CA 95032			SMITHERS, MATTHEW	
			ART UNIT	PAPER NUMBER
			2137	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/333,829

Applicant(s)

KIVINEN ET AL.

Examiner

Matthew B Smithers

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 16, 17, 24-28 and 30-33 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 18-23 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

Claims 1-13, 16-17, 24-28, and 30-33 are allowed.

### ***Response to Arguments***

Applicant's arguments, see amendment filed October 13, 2004, with respect to encapsulating packets only after determining a network address translation or protocol conversion is occurring on the packets being transmitted between two computers have been fully considered and are persuasive. The rejection of claims 1-13, and 16-17 has been withdrawn.

Applicant's arguments filed October 13, 2004 have been fully considered but they are not persuasive in view of claims 14-15, 18-23 and 29.

In response to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., encapsulating packets only after determining a network address translation or protocol conversion is occurring on the packets being transmitted between two computers) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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With respect to claims 14-15, and 18-23, none of the claims recite the feature relied on by applicant and no other distinctions were provided in applicant's arguments for the above claims. Therefore the claims 14-15 and 18-23 are still rejected.

With respect to claim 29, applicant argues the claim focuses solely on the actions of the second computer which are receiving encapsulated packets, decapsulating the packets and recovering the data. Claim 29 as presently written and argued do not recite any clear distinction over the prior art of record (Nessett, US 6,055,236). Therefore, claim 29 would have been rejected if presented in the earlier application as shown below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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Claims 14-15, 18-23 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 6,055,236 granted to Nessett et al.

Regarding claim 14, Nessett meets the claimed limitations as follows:

"A method for tunnelling packets between a first computer device and a second computer device through a packet-switched data transmission network comprising intermediate computer devices, in which data transmission network there exists a security protocol comprising a key management connection that employs a specific packet format for key management packets, the method comprising the steps of:

encapsulating data packets that are not key management packets into said specific packet format for key management packets,

transmitting said data packets encapsulated into the specific packet format from the first computer device to the second computer device,

discriminating at the second computer device the data packets encapsulated into the specific packet format from actual key management packets and

decapsulating the data packets encapsulated into the specific packet format."

see column 7, lines 8-33; column 13, line 32 to column 38, line 15 and Figure 1.

Regarding claim 15, Nessett meets the claimed limitations as follows:

"A method according to claim 14, wherein the step of encapsulating data packets that are not key management packets comprises the substeps of:

encapsulating data packets that are not key management packets into a key management packet format specified by the Internet Key Exchange protocol which defines a certain Initiator Cookie field and

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inserting into the Initiator Cookie field of an encapsulated data packet a value indicating that the encapsulated packet is a data packet and not a key management packet." see column 32, line 11 to column 33, line 39.

Regarding claim 18, Nessett meets the claimed limitations as follows:

"A method for securely communicating packets between a first computer device and a second computer device through a packet-switched data transmission network comprising intermediate computer devices, where:

at least one of said computer devices performs a network address translation and/or a protocol conversion;

and wherein a security protocol is acknowledged which determines transport-mode processing of packets for transmission and reception;

and where a high-level protocol checksum has been determined for checking the integrity of received packets, the method comprising the steps of:

at the first computer device, performing transport-mode processing for packets to be transmitted to the second computer device,

at the second computer device, performing transport-mode processing for packets received from the first computer device, said transport-mode processing comprising the decapsulation of received packets and

at the second computer device, updating the high-level protocol checksum for decapsulated packets for compensating for changes, if any, caused by network address translations." see column 7, lines 8-33; column 13, line 32 to column 38, line 15 and Figure 1.

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Regarding claim 19, Nessett meets the claimed limitations as follows:

"A method according to claim 18, wherein the step of performing transport-mode processing at the first computer device for packets transmitted to the second computer device takes the form of performing transport-mode processing as determined in the IPSEC protocol suite, and the step of performing transport-mode processing at the second computer device for packets received from the first computer device takes the form of performing transport-mode processing as determined in the IPSEC protocol suite." see column 21, line 1 to column 26, line 35.

Regarding claim 20, Nessett meets the claimed limitations as follows:

"A method according to claim 18, additionally comprising the steps of:  
at the first computer device, after performing transport-mode processing for a packet to be transmitted to the second computer device, encapsulating the processed packet into a packet conforming to a certain second protocol, which second protocol is capable of traversing network address translations and  
at the second computer device, before performing transport-mode processing for a packet received from the first computer device, decapsulating the received packet from the packet conforming to said second protocol and replacing a number of network addresses in the decapsulated packet with a corresponding number of network addresses taken from the received packet before decapsulation." see column 21, line 1 to column 26, line 35.

Regarding claim 21, Nessett meets the claimed limitations as follows:

"A method according to claim 18, wherein the step of updating the high-level protocol checksum takes the form of recomputing the checksum for the transport-mode-processed packets." see column 23, lines 3-45.

Regarding claim 22, Nessett meets the claimed limitations as follows:

"A method according to claim 18, wherein the method additionally comprises the step of obtaining information about the network addresses of the first and second computer devices before and after network address translations, and the step of updating the high-level protocol checksum takes the form of incrementally updating the checksum based on the obtained information about the network addresses of the first and second computer devices before and after network address translations. " see column 21, line 1 to column 26, line 35.

Regarding claim 23, Nessett meets the claimed limitations as follows:

"A method for maintaining the unchanged form of address translations performed by network address translation devices on encapsulated actual data packets transmitted with certain address information between a first computer device and a second computer device through a packet-switched data transmission network, the method comprising the step of:

forcing at least one of the first computer device and the second computer device to transmit to the other computer device keepalive packets with address information identical to that of actual data packets at a high enough frequency so that network address translation devices constantly reuse the mappings used for network address translation even when a certain fraction of the packets communicated between



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the first computer device and the second computer device are lost in the network." see column 7, lines 8-33; column 13, line 32 to column 38, line 15 and Figure 1.

Regarding claim 29, Nessellet meets the claimed limitations as follows:

"A method for receiving data transmitted in tunneled, secure packets sent from a first computer device to a second computer device through a packet-switched data transmission network comprising intermediate computer devices, where at least one of said intermediate computer devices may perform a network address translation or a protocol conversion resulting in alteration of a packet propagating therethrough, and wherein said tunneled, secure packets comprise packets of a first secure protocol encapsulated in packets of a second protocol which can pass through network address translations or protocol conversions, the method comprising the steps of:

- decapsulating packets received from said first computer device and conforming to said second protocol to recover packets conforming to said first protocol; and
- using said first secure protocol to recover data transmitted in said first secure protocol packets." see column 7, lines 8-33; column 13, line 32 to column 38, line 15 and Figures 1, 14 and 20.

### Conclusion

This is a Request for Continued Examination of applicant's earlier Application No. 09/333,829. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, THIS

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ACTION IS MADE FINAL even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B Smithers whose telephone number is (571) 272-3876. The examiner can normally be reached on Monday-Friday (8:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew T Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Matthew B Smithers  
Primary Examiner  
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